

## MONITOR WELL PRE-SPUD PROPOSAL

- 1) WELL NAME/NUMBER: ST-4 (Shallow)
- 2) PROPOSED LOCATION: (a) General (on or off-site) Off-site  
(attach map                      Site Area State Land Section)  
(b) Sect 32      Twnshp 20S      Rng 3E      SW ¼ SE ¼ NE ¼ NW ¼
- 3) WELL PARAMETERS:
  - (a) Est. total depth 500 (ft)      (b) Est. ground elevation @4430 ft
  - (c) Anticipated stratigraphy:  
Alluvium (Santa Fe Group) from 0 ' to TD ' (depth)  
from \_\_\_\_\_ ' to \_\_\_\_\_ ' (depth)
  - (d) Anticipated water bearing horizon(s):  
Alluvium (Santa Fe Group) at 475 ' (depth)  
at \_\_\_\_\_ ' (depth)
  - (e) Anticipated static water level 450 ' (depth)
- 4) WELL PURPOSE/JUSTIFICATION (attach maps and table if needed):  
To determine groundwater quality in the shallow alluvial aquifer north of existing  
monitoring wells located within the Western Boundary Fault (WBF) zone.
- 5) PROPOSED DRILLING PARAMETERS:
  - (a) Drilling method(s): (air/foam/mud rotary/auger/etc.)  
Mud Rotary (for surface casing) from 0 ' to 100 ' (max.)  
Air Foam Rotary from 100 ' to TD ' (depth)

Air-foam method: "Quik-Foam" surfactant/water mixture used in conjunction with filtered compress air.

Mud-rotary method: Bentonite mud/water mixture.

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- (b) Lithology sampling - collect sample every:

5' intervals Method Grab from 0 to TD (depth)  
Core type 6" Dennison from \_\_\_\_\_ to \_\_\_\_\_ (depth)  
2" Christiansen from \_\_\_\_\_ to \_\_\_\_\_ (depth)

- (c) Anticipated drilling additive(s): E-Z mud (if needed)

7) PROPOSED WELL COMPLETION DESIGN/MATERIALS

(a)	Casing:	Material	Diameter	From	To	Comments
	Temporary	_____	_____	_____	_____	
	Surface	_____	<u>10"</u>	<u>0</u>	<u>100' max</u>	
	Screen (10')	<u>Stainless ++</u>	<u>4"</u>	<u>To be determined</u>	<u>from Geophysical</u>	<u>0.02"</u>
				<u>logs</u>		
	Completion Pipe	<u>stainless +</u>	<u>4"</u>	<u>0</u>	<u>TD</u>	_____

Standard material: Blank riser, silt trap, locking cap

N/A Data not available at this time

+ Type 304, Schedule 5 stainless steel

Type 304, Schedule 10 stainless steel (used below 400')

++ Regular strength screen, extra strength screen used below 450 feet

- (b) Filter pack: Standard 8/20 and 16/40 sand and bentonite plug(s), grout to surface.

8) PROPOSED WELL DEVELOPMENT

- (a) Surge and bail with surge block and bailer.

- (b) Pump with submersible pump until parameters stabilize.

9) WELL AUTHORIZATION

- (a) Proposed by Geoscience Consultants, Ltd.

(b) Authorized William E. Waldrip NASA W. E. Waldrip  
(name) (representing) (signature)

# NASA-WSTF WELL LOCATIONS

